REMARKS

This is a response to the Office Action of September 29, 2003.

Claims 1-9 are amended to improve readability. Claim 1 is amended based on the specification, e.g., page 23, lines 4-18 and page 23, line 28 to page 24, line 9. Regarding bridging information in claims 1, 5, 6, 8 and 9, see the specification, e.g., page 24, lines 16-18. Claims 10-13 are new and are based on, e.g., the specification, page 22, lines 23 and 24. Claims 14-16 are new and are based on, e.g., the specification, page 19, lines 5-15.

Regarding paragraph 3 of the Office Action, Applicant's use of the term "split bridge" was not meant to refer to any trademarked product but merely indicates that the bridge has a dual functionality. For example, the specification, page 23, lines 4-18 refers to the two interfaces or the duality provided by a split bridge as defined by Applicant. In any event, the term has been modified to refer to a "bridge device".

Regarding paragraph 4 of the Office Action, this point should be moot in view of the amended claims.

Regarding paragraph 5 of the Office Action, and the rejection of claims 1-9 under 35 U.S.C. §112, first paragraph, this point should be moot in view of the amended claims. In any event, Applicants do not concede to the propriety of the Examiner's assertions. Applicant is free to be his own lexicographer and to use the term "split bridge" in the sense described in the specification.

Regarding paragraph 6 of the Office Action, claims 1, 2 and 4-9 have been rejected under 35 U.S.C. §103 as being unpatentable over U.S. patent 5,881,269 to Dobblestein and U.S. patent 5,996,016 to Thalheimer et al. (Thalheimer).

Dobblestein uses a single workstation to simulate multiple LAN clients. A client machine 80 and a server machine 81 are coupled by a network 83 (col. 4, lines 22-24). A redirector 48 serves as an interface between the client applications 47 and the network 83 (col. 5, lines 4 and 5). Requests from the client applications 47 are converted by the redirector 48 to SMB packets and sent via the transport layers 49, 50 to the server 81 via a network adapter 40. The transport layer 49 is a NetBEUI protocol driver, while the transport

layer 50 is a MAC driver (col. 5, lines 61-65). The client request or message is converted into SMB packets (col. 5, lines 33-35). At the server 81, the message is received via a network adapter 131. A MAC driver 133 sends the message from the client up the protocol stack 135 (NetBEUI) to a redirector 139 of the server (col. 6, lines 23-41). The harvester mechanism 51 obtains copies of the SMB traffic from the redirector to simulate multiple clients at the single workstation (col. 6, lines 42-45).

The Dobblestein approach is therefore rather different than the invention of claim 1, for example. Claim 1 sets forth a simulator that includes a bridge device and a frame generator. The frame generator is coupled to a first interface of the bridge device. The frame generator generates at least one simulated network frame from each of multiple virtual clients. This is in contrast to the Dobblestein approach, where the same data from a client is merely copied to simulate multiple clients. Moreover, claim 1 sets forth that for each of the multiple virtual clients, a unique identifier combined with bridging information is associated with the at least one simulated network frame. Again, Dobblestein fails to disclose or suggest this feature. In fact, Dobblestein does not disclose or suggest the user of a bridge as claimed by Applicant. Instead, the client simulation of Dobblestein is performed entirely at a workstation, and not at any bridge.

Thalheimer provides multiple IP applications in a single processing system by intercepting a bind call from an application and binding the application to an alternate IP address, which is an address other than the default IP address associated with the network interface (col. 4, lines 24-44). In a simulated network (Figure 4), a master station 51 in a network 50 maintains a list of network and aliased addresses. A processing system 20 is connected to the network 50 and provides a simulated router function 52, which provides the aliased IP addresses, and simulated subnets 54, 56 and 58.

Applicant respectfully disagrees with the Examiner's assertion that Thalheimer discloses routing simulated network frames using bridging information. As indicated, Thalheimer is only concerned with a simulated router function 52 (col. 5, line 42) and not a bridge device as claimed. A bridge operates at the data link layer of a protocol stack. For example, this may be level 2 of the Open System Interconnection (OSI) protocol.

In contrast, a router operates at the network layer such as level 3 of the OSI protocol, and is therefore protocol dependent.

Advantageously, Applicant's simulator can remain protocol neutral. Any necessary protocol specific routing functions can be subsumed by the simulator and not exposed to the system being tested. The purpose is to simulate and virtualize clients attached to any arbitrary network. The invention is contrary to Dobblestein, where the protocol stack is unmodified as is the network attachment device at the bottom of the stack. Thus, contrary to the invention, the network frames from the network adapter 131 of Dobblestein will have the same data link layer identifier, such as MACID. Similarly, the invention is in contrast to Thalheimer, where the protocol stack is unmodified (except for the provision of an exit point) as is the network attachment device at the bottom of the protocol stack.

Furthermore, there is no motivation to combine Dobblestein and Thalheimer since they are concerned with different problems.

Claim 1 and the dependent claims thereof are therefore believed to be allowable over Dobblestein and Thalheimer.

Regarding claim 4, this claims relates to a simulator having a plurality of bridge devices, for load balancing. A primary bridge device passes a received broadcast message, without delay, to a server, while a secondary bridge device passes the received broadcast message, with a predetermined delay, to the server. Subsequent messages are sent only to the primary bridge device. The Examiner cites item 51 in Thalheimer as showing a plurality of bridges. However, item 51 is a master station (col. 5, line 37). Item 52 is a simulated router function. In any case, Thalheimer provides no disclosure or suggestion of the simulator of claim 4 wherein primary and secondary bridges are provided, and a broadcast message is passed either without or with a delay, as claimed. Dobblestein similarly provides no disclosure or suggestion of the simulator of claim 4. Accordingly, the combination of these two references simply could not lead one of ordinary skill in the art to the invention of claim 4. The Examiner is respectfully requested to either withdraw the

rejection or specifically cite the basis for rejecting each limitation of claim 4 in the cited references. Claims 7 and 8 are similarly patentable over the cited references.
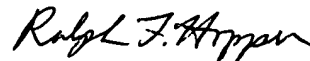
Claim 5 sets forth a method for inserting simulated network frames onto a physical medium where bridging information is configured in a bridge device to include identifiers associated with simulated network frames, and the identifiers emulate identifiers of a plurality of client workstations. In contrast, Dobblestein and Thalheimer fail to disclose or suggest the use of a bridge device as claimed. Claim 6 is similarly patentable over the cited references.

Claim 3 has been rejected under 35 U.S.C. §103 as being unpatentable over U.S. patent 5,881,269 to Dobblestein in view of U.S. patent 5,996,016 to Thalheimer et al. (Thalheimer) and further in view of U.S. patent 6,530,078 to Shmid. Shmid discloses a method to quickly migrate applications from any operating system to an OS/390 operating system. Thus, Schmid only supplies an operating platform that is available natively. The virtualization provided by Shmid is unneeded and only adds to the cost of a solution provided by a simulator alone. Thus, there is no motivation to combine Shmid with any simulator.

Withdrawal of the rejections is therefore respectfully requested.

In view of the foregoing remarks, it is respectfully submitted that this application is in condition for allowance. Accordingly, it is respectfully requested that this application be allowed and a Notice of Allowance be issued. If the Examiner believes that a telephone conference with the Applicant's attorneys would be advantageous to the disposition of this case, the Examiner is requested to telephone the undersigned.

Respectfully submitted,

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